

6CN7

Twin Diode—High-Mu Triode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Heater-section

arrangement	Parallel	Series	Series	
Voltage				
(AC or DC).	3.15 ^a	6.3 ^b	6.3±0.6	volts
Current . . .	0.600±0.040	0.300±0.020	0.300 ^c	amp
Warm-up time				
(Average) . .	11	11	—	sec

Peak heater-cathode voltage (Each unit):

Heater negative with			
respect to cathode.	200	max.	volts
Heater positive with			
respect to cathode.	200 ^d	max.	volts

Direct Interelectrode Capacitances (Approx):^e

Triode Unit:

Grid to plate	1.8	pf
Grid to cathode and heater.	1.5	pf
Plate to cathode and heater	0.5	pf

Diode Units:

Diode-No.1 plate to cathode of diodes No.1		
and No.2 & internal shield, and heater.	3.6	pf
Diode-No.2 plate to cathode of diodes No.1		
and No.2 & internal shield, and heater.	3.6	pf
Triode grid to either diode plate	0.006	pf

Characteristics, Class A₁ Amplifier (Triode Unit):

Plate Voltage	100	250	volts
Grid Voltage.	-1	-3	volts
Amplification Factor.	70	70	
Plate Resistance (Approx.)	54000	58000	ohms
Transconductance.	1300	1200	μmhos
Plate Current	0.8	1	ma

Mechanical:

Operating Position.	Any
Type of Cathodes.	Coated Unipotential
Maximum Overall Length.	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" ± 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See <i>General Section</i>
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No.E9-1)

← Indicates a change.



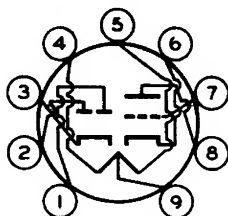
RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA
1-63

6CN7

Basing Designation for BOTTOM VIEW. 9EN

Pin 1 - Diode-No.2
Plate
Pin 2 - Diode-No.1
Plate
Pin 3 - Cathode of
Diodes No.1
& No.2,
Internal
Shield



Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Triode
Cathode
Pin 7 - Triode Grid
Pin 8 - Triode Plate
Pin 9 - Heater Tap

TRIODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE 330 max. volts
GRID VOLTAGE:
Positive-bias value 0 max. volts
PLATE DISSIPATION 1.1 max. watts

Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No.7*
at front of this section

DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE CURRENT 5.5 max. ma

Characteristics, Instantaneous Value:

Plate Current for plate volts = 5 20 ma

^a At heater amperes = 0.600.

^b At heater amperes = 0.300.

^c At heater volts = 6.3

^d The dc component must not exceed 100 volts.

^e without external shield.

CURVES

For Triode shown under Type 6T8A also apply to the 6CN7

